

REMARKS

This Amendment is in response to the non-final Official Action currently outstanding with respect to the above-identified application.

Claims 1-47 were pending prior to the Examiner's Requirement for Restriction of 10 April 2001. As a result of Applicants' response to that Requirement for Restriction, Claims 15-28, 30 and 38-47 were withdrawn from further consideration in this application, without prejudice. Claims 1-14, 29 and 31-37, therefore, constituted the claims to which the Official Action of 15 April 2002 (as reissued on 16 May 2002) is directed. By the Amendment of 16 August 2002, Claims 2, 9 and 12 were canceled, without prejudice; Claims 1, 3, 6, 10, 13, 14, 29 and 31 were amended; and New Claim 48 was added. Accordingly, Claims 1, 3-8, 10, 11, 13-14, 29, 31-37 and 48 constituted the claims under active prosecution at the time of the issuance of the FINAL Official Action dated 15 January 2003. In the Amendment Accompanying Request for Continued Examination mailed on 15 May 2003, Applicants cancelled the non-elected claims, and further amended the independent claims of this application; namely, Claims 1, 6, 29 and 31.

The present Amendment corrects formal errors in Claims 5 and 8, and corrects the record concerning Applicants' failure to appropriately designate and/or include in the Amendment Accompanying Request for Continued Examination the intended deletion of certain wording theretofore constituting part of Claims 1, 6 and 31. Applicants apologize for any inconvenience caused to the Office by the latter clerical errors. Applicants respectfully submit that the foregoing re-statement of the Claims of this application as they currently are intended to read will appropriately clarify and correct the present record.

Specifically, in the Amendment Accompanying Request for Continued Prosecution, Applicants inadvertently neglected to cancel the word “and” at the end of line 3 of each of Claims 1, 6 and 31. Further, Applicants inadvertently failed to specifically include the following cancelled wording that was theretofore present after the word “substrates” at the end of line 4 of each of claims 1, 6 and 31 in the amended versions of those claims:

~~“and constituted by a liquid crystal material of which the refractive index anisotropy is specified to vary with wavelengths of rays of light within a range that allows no viewing angle dependent coloration to occur to an image displayed on the liquid crystal display element”~~

Consequently, upon the entry of the foregoing Amendment, Claims 1, 3-8, 10-11, 13-14, 29, 31-37 and 48 as hereinabove presented will constitute the claims under active consideration in this application.

In the currently outstanding non-final Official Action, the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC 119(a)-(d) or (f), and also acknowledged the receipt of the required certified copy of the priority documentation by the United States Patent and Trademark Office; and
2. Rejected Claims 1, 3-8, 10, 11, 13, 14, 29, 31-37 and 48 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention

No further comment regarding item 1 above is deemed to be required in these Remarks. In addition, Applicants respectfully note that the drawings of this application were approved on December 23, 1997, and that the Examiner has acknowledged all Information Disclosure Statements filed in this case to date. Accordingly, no formal matters requiring correction and/or acknowledgement are believed to remain outstanding in this application. In view of the long history of this application, however, Applicants respectfully request that the Examiner confirm this understanding in response to this communication in order that any overlooked formal detail(s) may be expeditiously corrected prior to the allowance and issue of this application.

With respect to item 2 above, it is noted that the Examiner's **SOLE** basis for rejecting the currently pending claims of this application is that they are "indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention". In particular, the Examiner appears to suggest that Applicants' previous arguments concerning his "**enablement**" rejections somehow indicate that both broad and narrow ranges ***for the same parameter*** are improperly simultaneously present in the claims, and that this fact somehow renders the present claims indefinite under 35 USC 112, second paragraph. In support of this proposition, the Examiner relies upon the MPEP and *Ex parte Wu*, 10 USPQ 2d 2031, 2033 (Bd. Pat. App. & Inter., 1989), among other case citations, as indicating that a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (***in the same claim***) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

According to the Examiner's expansive interpretation, this authority deals with situations wherein, for example, a claim utilizes the wording "such as" following the recitation of **broad language** and preceding the recitation of **narrow language** thereby raising a question or doubt as to whether the feature introduced by the narrow language is merely exemplary or represents a required feature of the claims.

Applicants do not disagree with the foregoing rules of claim interpretation concerning broad and narrow ranges. However, Applicants do not understand, and hence traverse, the Examiner's logic in the present circumstances. Specifically, in order to reach the conclusion discussed above, Applicants respectfully submit that the Examiner must have become confused by and/or misunderstood Applicants' arguments in the last filed Amendment in this application. In particular, Applicants respectfully submit that the Examiner has totally misunderstood and/or misread the import of Applicants' argument that states **for the purpose of showing that the present specification is enabling** that:

"In the latter regard, it is so well understood as not to require citation to specific authority that claims are to be interpreted in light of the specification. Further, in this case, the specification itself clearly indicates that **in addition to the general functional requirement claimed**, one or both of two specified conditions are useful in determining whether or not a particular liquid crystal material falls within the scope of the present invention. These two conditions are set forth in the specification and claims as follows:

- 1) " $\Delta n(450) - \Delta n(650)$, i.e., the difference between the refractive index anisotropy $\Delta n(450)$ of the liquid crystal material for rays of light having the wavelength of 450 nm and the refractive index anisotropy $\Delta n(650)$ thereof for rays of light having the wavelength 650 nm, is set in a range not less than 0.0070 to not more than 0.0250. The difference is more preferably set in a range not less than 0.0200 to not more than 0.0250." (Page 26, lines 15 to22)

- 2) "The refractive index anisotropy Δn (550) of the liquid crystal material for rays of light having the wavelength 550 nm is set to be larger than 0.060 and smaller than 0.120. More preferably, the refractive index anisotropy Δn (550) is set to be not less than 0.070 and not more than 0.095." (Page 28, Lines 4 to 9)

More particularly, Applicants respectfully submit that in making the present rejection the Examiner must have read both sets of limitations stated ***in the specification*** for each respective variable into each of the claims of this application via the functional language utilized therein. The reading of limitations into the claims via functional language contained therein, however, clearly is not proper. That sort of consideration may be appropriate to show enablement in terms of the association of functional language in the claims with disclosure in the specification, but the exercise of determining whether or not there is an enabling disclosure is quite different from reading limitations into the claims for the purpose of determining their patentability. Also, a careful reading of Applicants' above-quoted comments reveals that in each case the contemplated range referred to is followed immediately by a reference to a preferred range within that contemplated range. The Examiner's rejection, therefore, not only reads limitations from the specification into the claims, but also to engrafts ***both*** the contemplated and the preferred range disclosures that establish enablement onto the functional wording contained in the claims for purposes of analysis of the claims under 35 USC 112, second paragraph. Applicants respectfully submit that such is not an appropriate procedure in the determination of the patentability of the claims of an application.

It will be understood, therefore, that by the foregoing logic the Examiner has alleged that Applicants have argued and/or presented claims wherein the difference in the index of refraction dispersion in the liquid crystal material between that for light having a wavelength of 650 nm and light having a wavelength of 450 nm is in a range of .020-.025, and the delta n (meaning Δn_{550} ??) is in the range of 0.070-0.095 *while the claims include broader ranges (referring to other wavelengths of light??)*. According to the Examiner, this means that both broad and narrow ranges exist in the claims thereby rendering them indefinite. To the extent that Applicants understand this position, they respectfully submit that the Examiner simply is in error.

The true fact is that the claims **taken as a group** do contain multiple different ranges for the same parameter. The Examiner has admitted, however, that his previous rejection under 35 USC 112, first paragraph, no longer applies. Accordingly, there is no question being raised concerning whether are not all of the ranges claimed are supported by the specification.

Applicants can agree that each claim is supposed to stand alone as defining a patentable invention and not to be duplicative of any other claim. Applicants, however, know of no law or rule that holds that different claims cannot claim different ranges within the same broad range within the same patent, nor do we know of any rule that prohibits a dependent claim from further limiting its parent claim(s) by narrowing a broad range claimed in the parent claim(s). Indeed, the very definition of a dependent claim is that it refers back to and further limits another claim or claims of the same application.

Consequently, a review of the claims of this application reveals the following relationships among the claims of this application concerning claimed ranges for each different parameter set forth therein as a specifically claimed feature:

Claim 1 : $0.060 < \Delta n(550) < 0.120$
Claim 3: $0.065 < \Delta n(550) < 0.115$ dependent from Claim 1
Claim 4: $0.070 < \Delta n(550) < 0.095$ dependent from Claim 3
Claim 6: $0.060 < \Delta n(550) < 0.120$
 $0.007 < \Delta n(450) - \Delta n(650) < 0.0250$
Claim 7: $0.020 < \Delta n(450) - \Delta n(650) < 0.0250$ dependent on Claim 6
Claim 10: $0.065 < \Delta n(550) < 0.115$ dependent from Claim 6
Claim 11: $0.070 < \Delta n(550) < 0.095$ dependent from Claim 10
Claim 29: $0.060 < \Delta n(550) < 0.120$
 $0.007 < \Delta n(450) - \Delta n(650) < 0.0250$
Claim 31: $0.007 < \Delta n(450) - \Delta n(650) < 0.0250$
Claim 32: $0.060 < \Delta n(550) < 0.120$ dependent from Claim 31
Claim 32: $0.065 < \Delta n(550) < 0.115$ dependent from Claim 31
Claim 33: $0.070 < \Delta n(550) < 0.095$ dependent from Claim 31
Claim 35: $0.020 < \Delta n(450) - \Delta n(650) < 0.0250$ dependent on Claim 31
Claim 36: $0.065 < \Delta n(550) < 0.115$ dependent from Claim 32
Claim 37: $0.070 < \Delta n(550) < 0.095$ dependent from Claim 36

This analysis unequivocally reveals that in every instance only one range is stated for each parameter claimed, and that each dependent claim further restricts one of the ranges set forth in its parent claim. Applicants respectfully and specifically note in this regard that the $\Delta n(550)$ for a particular liquid crystal material is not the same parameter as the $(\Delta n(450) - \Delta n(650))$ for that material. Thus, since the foregoing relationship among the present claims is illustrative of the very essence of what a dependent claim is contemplated to do, Applicants respectfully submit that the Examiner's position cannot be justified. None of the present set of claims contains both broad and narrow ranges ***for the same parameter in the same claim.***

Hence, there can be no question that the Examiner's rejection that alleges that the present claims are indefinite because they contain broad range limitations together with narrow limitations within the broad range limitations in the same claim is simply contrary to the plain recitations of the present claims. Indeed, the foregoing summary clearly and unequivocally demonstrates that each of the presently pending claims contains only one range for any particular defined variable parameter of the claimed liquid crystal material (i.e., Δn (550) and/or (Δn (450) - Δn (650))). Further, in each claim it is totally clear that the features introduced by the statements of the particular ranges are required features of the claims of which they form a part, not simply exemplary limitations. Therefore, the Examiner's reliance upon case law that questions the practice of the inclusion of both broad limitations and narrow limitations directed to the same element or range within the same claim is believed to be totally misplaced in the present circumstances. As has been noted, in the present case each claim contains only one range for each variable parameter mentioned (defined) thereby taking the claims of this application outside of the scope of the reasons for rejection suggested by the Examiner.

Accordingly, Applicants respectfully submit that the Examiner's basis for his present rejections not only appears to be improper, but also to be unreasonable. If the limitations of the specification were to be read into the claims (which itself is not proper), Applicants would at least be entitled to the broadest reasonable construction of the wording of the claims supported by the specification. This is not the broadest range contemplated with one of the narrower preferred ranges engrafted thereon, it is the broadest reasonable interpretation, i.e., the broadest range contemplated by the specific wording of the particular claim under consideration.

In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the Examiner's currently outstanding rejections are clearly improper and/or insufficient to render the present claims unpatentable, and that consequently all of the claims that will be present in this application upon the entry of the foregoing Amendment are in condition for allowance. Reconsideration and allowance of this application in response to this communication, therefore, are respectfully requested.

Applicants believe that additional fees are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

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